August 30, 2001

Mr. Kenneth Rush. Sellersburg Stone Company, Inc. P.O. Box D, Sellersburg, Indiana 47172

> Re: SPR 019-13962-03109 Second Significant Revision to FESOP F019-5424-03109

Dear Mr. Rush:

Sellersburg Stone Company, Inc. was issued a FESOP on December 9, 1996 for two (2) stationary hot drum-mix asphalt plants. A letter requesting changes to this permit was received on February 27, 2001. Pursuant to the provisions of 326 IAC 2-8-11.1 a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The change consists of an additional 25,000 gallons fuel tank storing either No. 2 or No. 6 fuel oil, and the addition of the capability of combusting No. 2 or No. 6 fuel oil at their existing one (1) drum dryer/mixer combusting natural gas with a maximum heat input capacity of 116 million British thermal units per hour (MMBtu/hr).

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions

The data and information supplied with the application shall be considered part of this source modification approval. Prior to <u>any</u> proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

- 2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
- Effective Date of the Permit

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

- 4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
- 5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

- Prior to start of operation, the following requirements should be met: 6.
 - The attached affidavit of construction shall be submitted to the Office of Air (a) Quality (OAQ), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Significant Permit Revision may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
 - If construction is completed in phases; i.e., the entire construction is not done (b) continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
 - (c) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Phillip Ritz, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for extension (3-6878), or dial (973) 575-2555, extension 3241.

Sincerely,

Original signed by Paul Dubenetzky Paul Dubenetzky, Chief Permits Branch Office of Air Quality

Attachments PR/EVP

File - Clark County CC: U.S. EPA, Region V

> Clark County Health Department Air Compliance Section Inspector - Joe Foyst

Compliance Data Section - Jerri Curless Administrative and Development - Janet Mobley

Technical Support and Modeling - Michelle Boner

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015 Phone: 1-800-451-6027

Sellersburg Stone Company Inc. 1019 East Utica Street Sellersburg, Indiana 47172

(Herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR Part 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: F019-5424-03109	
Issued by: Paul Dubenetzky, Branch Chief	Issuance Date: December 9, 1996
Office of Air Quality	Expiration Date: December 9, 2001

First Minor Modification 019-8782 Issuance Date: October 14, 1997 Second Minor Modification 019-9865 Issuance Date: September 14, 1998 First Significant Modification 019-9885 Issuance Date: October 28, 1998 First Significant Permit Revision: 019-11077 Issuance Date: October 25, 1999 First Administrative Amendment 019-11859 Issuance Date: March 22, 2000.

Second Significant Permit Revision 019-13962	Pages Affected: 4a, 4b, 21, 22, 23, 23a, 23b, 23c, 24, 27a and 28		
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: August 30, 001		

Page 4a of 28 FESOP No. F019-5424-03109

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates two (2) stationary hot drum-mix asphalt plants.

Authorized Individual: Diane M. Green

Source Address: 1019 East Utica Street, Sellersburg, IN 47172

Mailing Address: P.O. Box D, Sellersburg, IN 47172

SIC Code: 2951 Source Location: Clark

County Status: Nonattainment for ozone

Attainment for all other criteria pollutants

Source Status: Federally Enforceable State Operating Permit (FESOP)

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

The stationary source consists of the following emission units and pollution control devices: Plant #1:

- (a) One (1) 30,000 gallon liquid asphalt storage tank for asphalt cement.
- (b) One(1) 20,000 gallon liquid asphalt storage tank for asphalt cement.
- (c) One (1) hot drum mixer, identified as Unit #2, with a maximum capacity of 600 tons of asphalt per hour, equipped with one (1) drum mix dryer utilizing natural gas at a maximum rated capacity of 200 million British thermal units per hour (MMBtu/hr), using one (1) baghouse for particulate control, and exhausting to one (1) stack, S/V ID #1.

Plant #2

- (d) One (1) drum dryer/mixer with a maximum throughput of 300 tons per hour utilizing a dryer burner fired by either natural gas, No. 2 distillate or No. 6 residual fuel oil with a maximum heat input capacity of 116 million British thermal units per hour (MMBtu/hr). The dryer/mixer exhausts at stack SV2-1.
- (e) One (1) baghouse with a total filter area of 7975 ft2.
- (f) Two (2) 30,000 gallon liquid asphalt storage tanks.
- (g) One (1) 15,000 gallon liquid asphalt storage tank.
- (h) One (1) 25,000 gallon No. 2 distillate or No. 6 residual fuel oil storage tank.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) One (1) hot oil heater, fired by natural gas and rated at 5 million British thermal units. The heater exhausts at stack SV2.
- (b) One (1) hot oil heater, fired by natural gas and rated at 1.5 million British thermal units.

- (c) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.
- (d) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (e) One (1) material storage and handling process, with a maximum storage capacity of 15,000 tons for limestone, 10,000 tons for sand, and 2,000 tons for reclaimed asphalt pavement (RAP), utilizing a wetting system for particulate control.
- (f) One (1) hot oil heater, fired by natural gas with a maximum heat input capacity of 1.4 million British thermal units per hour. The heater exhausts at stack SV2-2.
- (g) Two (2) cold feed storage bins with belt feeders. Each bin has maximum capacity of 32 tons of virgin aggregate. The belt feeders have a maximum capacity of 300 tons per hour.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions

- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

Plant #1

One (1) hot drum mixer, identified as Unit #2, with a maximum capacity of 600 tons of asphalt per hour, equipped with one (1) drum mix dryer utilizing natural gas at a maximum rated capacity of 200 million British thermal units per hour (MMBtu/hr), using one (1) baghouse for particulate control, and exhausting to one (1) stack, S/V ID #1.

Plant #2

One (1) drum dryer/mixer with a maximum throughput of 300 tons per hour utilizing a dryer burner fired by either natural gas, No. 2 distillate or No. 6 residual fuel oil with a maximum heat input capacity of 116 million British thermal units per hour (MMBtu/hr). The dryer/mixer exhausts at stack SV2-1. (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Sulfur Dioxide (SO2)[326 IAC 2-8]

- (a) The combined total input of No. 6 fuel oil and No. 6 fuel oil equivalents to Plant #1 and Plant #2 dryer burners shall be limited to 755,178 gallons per twelve (12) consecutive month period. This is equivalent to limiting the potential to emit SO2 to less than 100 tons per twelve (12) consecutive month period. During the first twelve (12) months of operation under this permit, the input of No. 6 fuel oil and No. 6 fuel oil equivalents shall be limited such that the total gallons divided by the accumulated months of operation shall not exceed the below stated throughputs in gallons per months. The total for each month shall not exceed the difference between the annual limit minus the sum of actual usage from the previous eleven (11) months. Compliance is based on the total fuel used during the previous twelve (12) months.
- (b) For purposes of determining compliance based on SO2 emissions, the following fuel equivalencies shall apply:
 - (1) Each gallon of No. 2 distillate fuel oil burned shall be equivalent to 2.71 x 10⁻¹ gallons of No. 6 fuel oil.

Due to the inherently low sulfur content of natural gas there is no equivalency to No. 6 fuel oil. Natural gas shall be limited to a maximum of 682.15 MMcf of natural gas fired per 12 consecutive month period pursuant to Condition D.1.2.

(c) The total amount of No. 6 fuel oil and No. 6 fuel oil equivalence combined shall not exceed the limit specified. During the first twelve (12) months of operation under this permit, the No. 6 fuel oil and No. 6 fuel oil equivalents combined shall be limited such that the total gallons divided by the accumulated months of operation shall not exceed 755,178 gallons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 will not apply.

Due to these limits, the Emission Offset (326 IAC 2-3) and the Prevention of Significant Deterioration (326 IAC 2-2 and 40 CFR 52.21) rules do not apply.

D.1.2 Nitrogen Oxides (NO_x) [326 IAC 2-8]

- (a) The combined total input of natural gas and natural gas equivalents in the Plant #1 and Plant #2 dryer burners shall be limited to 682.15 million cubic feet per twelve (12) consecutive month period. This is equivalent to limiting the potential to emit NOx to less than 100 tons per twelve (12) consecutive month period. During the first 12 months of operation under this permit, the input of natural gas and natural gas equivalents shall be limited such that the total million cubic feet divided by the accumulated months of operation shall not exceed the below stated throughputs in million cubic feet per months. The total for each month shall not exceed the difference between the annual limit minus the sum of actual usage from the previous eleven (11) months. Compliance is based on the total fuel used during the previous 12 months.
- (b) For purposes of determining compliance based on NOx emissions, the following equivalencies shall apply:
 - (1) Each gallon of No. 2 distillate fuel oil burned shall be equivalent to 7.14 x 10⁻⁵ MMcf of natural gas.
 - (2) Each gallon of No. 6 distillate fuel oil burned shall be equivalent to 1.96 x 10⁻⁴ MMcf of natural gas.
- (c) The total amount of natural gas and natural gas equivalence combined shall not exceed the limit specified. During the first twelve (12) months of operation under this permit, the natural gas and natural gas equivalents combined shall be limited such that the total gallons divided by the accumulated months of operation shall not exceed 682.15 million cubic feet per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 will not apply.

Due to these limits, the Emission Offset (326 IAC 2-3) and the Prevention of Significant Deterioration (326 IAC 2-2 and 40 CFR 52.21) rules do not apply.

D.1.3 Particulate Matter (PM)

Federal:

Pursuant to the New Source Performance Standards, 326 IAC 12 (40 CFR 60.90 -60.93, Subpart I), particulate matter emission from the asphalt plants shall not exceed 0.04 grains per dry standard cubic foot (gr per dscf). This is equivalent to particulate matter emission rates of 21.44 pounds per hour and 13.96 pounds per hour from Plants #1 and #2, respectively.

State:

Pursuant to 326 IAC 6-1-2 (Particulate Emissions Limitations), the particulate matter emission from the asphalt plants shall not exceed 0.03 grains per dry standard cubic foot (gr per dscf). This is equivalent to particulate matter emission rates of 16.08 pounds per hour and 10.47 pounds per hour from Plants #1 and #2, respectively.

, ...

D.1.3a Particulate Matter (PM)

The combined total production of asphalt mix in Plant #1 and Plant #2 shall be limited to 4,000,000 tons per twelve (12) consecutive month period. During the first twelve (12) months of operation, the production of asphalt mix shall be limited such that the total production divided by the accumulated months of operation shall not exceed 333,333 tons per month. This production limit is equivalent to PM emissions of 162.7 tons per twelve (12) consecutive months from the asphalt plant dryers/mixers, conveying and handling, and unpaved road traffic. Due to this limit, the Prevention of Significant Deterioration (326 IAC 2-2 and 40 CFR 52.21) rules do not apply.

Page 23 of 28 FESOP No. F019-5424-03109

D.1.4 Particulate Matter 10 Microns (PM-10)

Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the Plant #1 and Plant #2 aggregate dryer/mixers shall not exceed 0.0325 pounds per ton of asphalt mix produced, each, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

D.1.5 Opacity [326 IAC 12] [40 CFR 60.90, Subpart I]

Pursuant to 326 IAC 12, (40 CFR Part 60.92, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities", the mixing and drying operations shall not discharge or cause the discharge into the atmosphere any gases which exhibit 20% opacity or greater.

D.1.6 Volatile Organic Compounds (VOC) [326 IAC 8-5-2]

- (a) Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), no person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) of distillate by volume of emulsion for any paving application except:
 - (1) penetrating prime coating;
 - (2) stockpile storage;
 - (3) application during the months of November, December, January, February, and March.
- (b) Cutback asphalt or asphalt emulsion containing oil distillate or other volatile organic compounds (VOC) other than liquid asphalt shall not be produced at this source without prior review and approval by OAQ. Compliance with this part of this condition satisfies part (a) of this condition, but does not preclude the use of water based emulsifying agents in the production of cold mix asphalt.

D.1.6a Volatile Organic Compounds (VOC)

The input VOC usage in the production of cold mix cutback asphalt shall be limited to 78.6 tons per twelve (12) consecutive month period. During the first twelve (12) months of operation, the input VOC usage shall be limited such that the total usage divided by the accumulated months of operation shall not exceed 6.55 tons per month. This is equivalent to VOC emissions of 75.5 tons per twelve (12) consecutive month period based on 95% volatilization. Therefore, the Emission Offset (326 IAC 2-3) and Part 70 rules (326 IAC 2-7) do not apply.

D.1.7 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO2 Emissions Limitations) the SO2 emissions from the drum dryer/mixer with a maximum heat input capacity of 116 million British thermal units per hour (MMBtu/hr) shall not exceed five tenths (0.5) pounds per MMBtu heat input when combusting No. 2 fuel oil or one and six tenths (1.6) pounds per MMBtu heat input when combusting No. 6 fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

D.1.8 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their respective control devices.

Page 23a of 28 FESOP No. F019-5424-03109

Compliance Determination Requirements

D.1.9 Testing Requirements [326 IAC 2-8-5(a)(1), (4)]

Within 180 days after issuance of Significant Modification No. 019-9885, the Permittee shall perform PM and PM-10 testing on the Plant #1 dryer/mixer exhaust, and within 60 days of reaching maximum capacity, but no longer than 180 days after startup, the Permittee shall perform PM and PM-10 testing on the Plant #2 dryer/mixer exhaust. These tests shall utilize Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.1.10 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the drum dryer/mixer with a maximum heat input capacity of 116 million British thermal units per hour (MMBtu/hr), using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.11 Particulate Matter (PM)

The baghouse for PM control on each dryer/mixer shall be in operation at all times when the associated asphalt plant is in operation and exhausting to the outside atmosphere.

Second Significant Permit Revision 019-13962-03109 Amended by: PR/EVP

Page 23b of 28 FESOP No. F019-5424-03109

D.1.12 Visible Emissions Notations

- (a) Daily visible emission notations of each asphalt plant stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.13 Parametric Monitoring

- (a) The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the asphalt plants, at least once weekly when each asphalt plant is in operation and venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 3.0 and 5.0 inches of water for the Plant #1 baghouse and 3.0 and 6.0 inches of water for the Plant #2 baghouse or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. The instrument used for determining the pressure shall comply with Section C Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.
- (b) The inlet temperature to each baghouse shall be maintained within a range of 250-320 degrees Fahrenheit (F_o) to prevent overheating of the bags and to prevent low temperatures from mudding up the bags.

D.1.14 Baghouse Inspections

An inspection of all bags shall be performed for each baghouse every calender quarter. All defective bags shall be replaced.

D.1.15 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring

Page 23b of 28 FESOP No. F019-5424-03109

Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.16 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1, D.1.2, D.1.3a and D.1.6a, the Permittee shall maintain records in accordance with the items below.
 - (1) Monthly records of the natural gas, natural gas equivalents, No. 6 fuel oil and No. 6 fuel oil equivalents used in each asphalt plant dryer burner.
 - (2) Monthly records of the amount of asphalt mix produced at each asphalt plant.
 - (3) The amount and VOC contents of each diluent used in the production of cold mix cutback asphalt at each plant. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.
- (b) To document compliance with Condition D.1.12, the Permittee shall maintain records of daily visible emission notations of the aggregate dryer baghouse stack exhaust.
- (c) To document compliance with Condition D.1.13, the Permittee shall maintain the following:
 - (1) Documentation of all response steps implemented, per event.
 - (2) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 - (3) Quality Assurance/Quality Control (QA/QC) procedures.
 - (4) Operator standard operating procedures (SOP).
 - (5) Manufacturer's specifications or its equivalent.
 - (6) Equipment "troubleshooting" contingency plan.
- (d) To document compliance with Condition D.1.7, the Permittee shall maintain records in accordance with (1) through (6) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
 - (3) To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used.

Second Significant Permit Revision 019-13962-03109 Amended by: PR/EVP

Page 23c of 28 FESOP No. F019-5424-03109

If the fuel supplier certification is used to demonstrate compliance, when burning alternate fuels and not determining compliance pursuant to 326 IAC 3-7-4, the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications;
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.17 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.1.1 and D.1.2 shall be submitted to the address listed in Section C General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.
- (b) A quarterly summary of the information to document compliance with Condition D.1.3a shall be submitted to the address listed in Section C General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.
- (c) A quarterly summary of the information to document compliance with Condition D.1.6a shall be submitted to the address listed in Section C General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.
- (d) A semi-annual summary of the information to document compliance with Condition D.1.7 in any compliance period when No. 2 or No. 6 fuel oil was combusted, shall be submitted to the address listed in Section C General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six (6) month period being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Page 24 of 28 FESOP No. F019-5424-03109

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

Plant #1

One (1) 30,000 gallon liquid asphalt storage tank for asphalt cement.

One (1) 20,000 gallon liquid asphalt storage tank for asphalt cement.

Plant #2

Two (2) 30,000 gallon liquid asphalt storage tanks.

One (1) 15,000 gallon liquid asphalt storage tank.

One (1) 25,000 gallon No. 2 distillate or No. 6 residual fuel oil storage tank.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Volatile Liquid Storage Tanks [326 IAC 12]

The Plant #1 and Plant #2 storage tanks shall comply with the New Source Performance Standards (NSPS), 326 IAC 12 (40 CFR Part 60.116b only, Subpart Kb). 40 CFR Part 60.116b requires the permittee to maintain accessible records showing the dimension of each storage vessel and an analysis showing the capacity of the storage vessel. Records shall be kept for the life of the storage tanks.

Second Significant Permit Revision 019-13962-03109 Amended by: PR/EVP

Page 27a of 28 FESOP No. F019-5424-03109

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

	FESO	Quarterly Report	
Source Name: Source Address: Mailing Address: FESOP No.: Facility: Parameter: Limit:	P.O. Box D, Sellersh F019-5424-03109 Plants #1 and #2 Ag Sulfur Dioxide The combined total	eet, Sellersburg, IN 47172 ourg, IN 47172 gregate Dryer Burners input of No. 6 fuel oil and No. 6 er burners shall be limited to 7	6 fuel oil equivalents to Plant 55,178 gallons per twelve (12)
	YEAI	₹:	
	Column 1	Column 2	Column 1 + Column 2
Month	No. 6 Fuel Oil Usage This Month (gallons)	No. 6 Fuel Oil Usage Previous 11 Months (gallons)	12 Month Total No. 6 Fuel Oil Usage (gallons)
Month 1			
Month 2			
Month 3			
Title , Signa	/ Position:ature:	d in this quarter.	
Date: Phon			

Second Significant Permit Revision 019-13962-03109 Amended by: PR/EVP

Page 28 of 28 FESOP No. F019-5424-03109

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Address: 1019 East Utica Street, Sellersburg, IN 47172

FESOP No.: F019-5424-03109

Facility: Plants #1 and #2 Aggregate Dryer Burners

Parameter: Nitrogen Oxides

Limit: The combined natural gas usage and natural gas equivalence from Plants #1

and #2 shall be limited to 682.15 million cubic feet (MMcf) per twelve (12)

consecutive month period.

YEAR: _____

	Column 1	Column 2	Column 1 + Column 2
Month	Natural Gas Usage This Month (MMcf)	Natural Gas Usage Previous 11 Months (MMcf)	12 Month Total Natural Gas Usage (MMcf)
Month 1			
Month 2			
Month 3			

9		ИΟ	dev	ıatıor	OCC	urre	ed ir	this	quart	er.
---	--	----	-----	--------	-----	------	-------	------	-------	-----

9	Deviation/s occurred in this quarter. Deviation has been reported on:		
Submitt	ed by:		
Title / P	osition:		
Signatu	re:		
Date:			
Phone:			

Second Significant Permit Revision 019-13962-03109 Amended by: PR/EVP

Page 28a of 28 FESOP No. F019-5424-03109

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Sellersburg Stone Company

Source Address: 1019 East Utica Street, Sellersburg, IN 47172

FESOP No.: F019-5424-03109

Facility: Plants #1 and #2 Aggregate Dryer/Mixers

Parameter: Particulate Matter

Limit: The combined total production of asphalt mix in Plant #1 and Plant #2 shall be

limited to 4,000,000 tons per twelve (12) consecutive month period. During the first twelve (12) months of operation, the production of asphalt mix shall be limited such that the total production divided by the accumulated months of

operation shall not exceed 333,333 tons per month.

	Column 1	Column 2	Column 1 + Column 2
Month	Asphalt Mix Produced This Month (tons)	Asphalt Mix Produced Previous 11 Months (tons)	12 Month Total Asphalt Mix Produced (tons)
Month 1			
Month 2			
Month 3			

9	No deviation occurred in this quarter.		
9	Deviation/s occurred in this quarter.		
	Deviation has been reported on:		
Submitt	ted by:		
Title / P	Position:		
Signatu	ure:		
Date:			
Phone:			

Second Significant Permit Revision 019-13962-03109 Amended by: PR/EVP

Page 28b of 28 FESOP No. F019-5424-03109

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Sellersburg Stone Company

Source Address: 1019 East Utica Street, Sellersburg, IN 47172

FESOP No.: F019-5424-03109

Facility: Plants #1 and #2 Aggregate Dryer/Mixers
Parameter: Volatile Organic Compounds (VOC)

Limit: The input VOC usage in the production of cold mix cutback asphalt shall be

limited to 78.6 tons per twelve (12) consecutive month period based on 95% volatilization. During the first twelve (12) months of operation, the input VOC usage shall be limited such that the total usage divided by the accumulated

months of operation shall not exceed 6.55 tons per month.

YEAR: _____

	Column 1	Column 2	Column 1 + Column 2
Month	VOC Usage This Month (tons)	VOC Usage Previous 11 Months (tons)	12 Month Total VOC Usage (tons)
Month 1			
Month 2			
Month 3			

9	No deviation	occurred in	this quarter.
---	--------------	-------------	---------------

Deviation/s occurred in this quarter.			
eviation has been reported on:			
by:			
ition:			

Mail to: Permit Administration & Development Section
Office of Air Quality
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

Sellersburg Stone Company, Inc. P.O. Box D, Sellersburg, Indiana 47172

Affidavit of Construction

l,	, be	ing duly swo	orn upon my oath, dep	oose and say:	
(Name o	of the Authorized Representative)				
1.	I live in		County, Indiana and be	eing of sound mind and over twer	nty-one
	(21) years of age, I am competent to	give this affi	davit.		
2.	I hold the position of		for		
۷.	I hold the position of(Title	e)		(Company Name)	
3.	By virtue of my position with		(Company Name)	_,I have personal	
	knowledge of the representations cor	ntained in thi	s affidavit and am autl	horized to make	
	these representations on behalf of		(Company	· Noma	
			(Company	name)	
4.	I hereby certify that Sellersburg Stone completed construction of the addition			_	
	add the capability of combusting No.		·		
	natural gas with a maximum through				-
	the requirements and intent of the sig				
	February 27, 2001 and as permitted			•	-
	13962-03109 issued on				
Further Affiant sa	id not.				
I affirm under per and belief.	nalties of perjury that the representation	ons contain	ed in this affidavit are	e true, to the best of my information	ation
		Signatur	e		
		Date			
STATE OF INDIA	ANA) SS				
,)				
Subscri	bed and sworn to me, a notary public	in and for		County and State	of
Indiana on this _	day of		, 20	·	
My Commission	expires:				
			Signature		
			Name (typed or pri	inted)	

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit

Source Background and Description

Source Name: Sellersburg Stone Company Inc.

Source Location: 1019 East Utica Street, Sellersburg, IN 47172

County: Clark SIC Code: 2951

Operation Permit No.: F019-5424-03109
Operation Permit Issuance Date: December 9, 1996
Permit Revision No.: 019-13962-03109
Permit Reviewer: Phillip Ritz/EVP

The Office of Air Quality (OAQ) has reviewed a revision application from Sellersburg Stone Company Inc. relating to the operation of a modification to two (2) stationary hot drum-mix asphalt plants.

History

On February 27, 2001, Sellersburg Stone Company Inc. submitted an application to the OAQ requesting to add an additional 25,000 gallons fuel tank storing either No. 2 or No. 6 fuel oil, and to add the capability of combusting No. 2 or No. 6 fuel oil at their existing one (1) drum dryer/mixer combusting natural gas with a maximum heat input capacity of 116 million British thermal units per hour (MMBtu/hr). Sellersburg Stone Company Inc. was issued a FESOP on December 9, 1996.

Plant #2

- (d) One (1) drum dryer/mixer with a maximum throughput of 300 tons per hour utilizing a dryer burner fired by **either** natural gas, **No. 2 distillate or No. 6 residual fuel oil** with a maximum heat input capacity of 116 million British thermal units per hour (MMBtu/hr). The dryer/mixer exhausts at stack SV2-1.
- (e) One (1) baghouse with a total filter area of 7975 ft₂.
- (f) Two (2) 30,000 gallon liquid asphalt storage tanks.
- (g) One (1) 15,000 gallon liquid asphalt storage tank.
- (h) One (1) 25,000 gallon No. 2 distillate or No. 6 residual fuel oil storage tank.

Existing Approvals

The source was issued a FESOP (F019-5424-03109) on December 9, 1996. The source has since received the following:

- (a) First Minor Modification 019-8782-03109, issued on October 14, 1997;
- (b) Second Minor Modification 019-9865-03109, issued on September 14, 1998;
- (c) First Significant Modification 019-9885-03109, issued on October 28, 1998;
- (d) First Significant Permit Revision: 019-11077-03109, issued on October 25, 1999; and

(e) First Administrative Amendment 019-11859-03109, issued on March 22, 2000.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Significant Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 27, 2001.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 3.)

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

The following table lists the potential to emit for the one (1) drum dryer/mixer with a maximum throughput of 300 tons per hour utilizing a dryer burner fired by natural gas No. 2 distillate or No. 6 residual fuel oil with a maximum heat input capacity of 116 million British thermal units per hour (MMBtu/hr). The dryer/mixer exhausts at stack SV2-1:

The PTE from natural gas emissions is restricted by the applicable 326 IAC 2-8 emission rate limit. Prior to the issuance of the Significant Permit Revision (019-13962-03109) the PTE from No.2 and No. 6 fuel oil emissions are based on maximum capacity, however, after the issuance of the Significant Permit Revision the PTE from No.2 and No. 6 fuel oil emissions shall be restricted by the applicable 326 IAC 2-8 emission rate limit.

Pollutant	Potential To Emit (tons/year)
PM	46.72
PM-10	46.72
SO ₂	1,224.95
VOC	5.28
СО	28.65
NO _x	256.96

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

Justification for Modification

The FESOP is being modified through a Significant Permit Revision. This modification is being performed pursuant to 326 IAC 2-8-11.1(f), as this modification has a potential to emit greater than or equal to twenty-five (25) tons per year of PM10, SO2 and NOx and would be subject to the requirements of 326 IAC 2-2.

Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

Because the one (1) drum dryer/mixer combusting either natural gas, No. 2 or No. 6 fuel oil with a maximum throughput of 300 tons per hour, being reviewed under this Significant Permit Revision is being added to an existing source, the PTE of the modification below includes limited emissions of both the modified and existing asphalt plants combined. Emissions for the existing asphalt plant are based on calculations made in the Significant FESOP Revision No. 019-11077 with the exception of unpaved road and storage emissions which are based on the uncontrolled emission calculations in the original FESOP (019-5424-03109).

		Potential to Emit (tons/year)					
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
dryer(s) & burner(s) exhausting to stacks S/V ID #1 and SV2-1 (1)	59.00	65.00	0.20 95.50	25.00	28.60 28.65	95.50	23.10
hot oil heater(s)	0.10	0.30	0.00	0.20	2.90	3.50	0.00
conveying	10.30	1.00	0.00	0.00	0.00	0.00	0.00
unpaved roads	93.40	32.70	0.00	0.00	0.00	0.00	0.00
storage	0.10	0.00	0.00	0.00	0.00	0.00	0.00
cold mix production	0.00	0.00	0.00	74.70	0.00	0.00	0.00
Total Emissions	162.90	99.00	0.20 95.50	99.90	31.50 28.65	99.00	23.10

(1) Note: Limited PM/PM10 PTE levels have been revised to reflect the permit limited PTE's rather than the controlled potential emissions. Based on differences in the testing methods which demonstrate compliance for PM and PM-10 limitations, the PM-10 limitation pursuant to 326 IAC 2-8-4 is greater than the PM limitation pursuant to 326 6-1 (based on 90,000 acfm and 58,255 acfm for the existing and new plants, respectively) because it includes the condensible portions in addition to filterable PM-10.

County Attainment Status

The source is located in Clark County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO_2	attainment
Ozone	attainment
СО	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Clark County has been designated as attainment or unclassifiable for ozone.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	93.80
PM-10	25.00
SO ₂	0.50
VOC	0.00
со	75.40
NOx	99.00

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon the Significant Revision No. 019-11077 (to FESOP 019-5424-03109) issued on October 25, 1999.

Federal Rule Applicability

- (a) The modified one (1) drum dryer/mixer combusting either natural gas, No. 2 or No. 6 fuel oil with a maximum throughput of 300 tons per hour, is still subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.90, Subpart I. Pursuant to NSPS, the following apply to this facility:
 - (1) Performance tests are required as specified in this Subpart and as outlined in Part 60.8.
 - (2) On or after the date on which the performance tests are completed, no owner or operator subject to the provisions of Subpart I shall discharge or cause the discharge into the atmosphere from any affected facility any gases which:
 - (i) Contain particulate matter in excess of 0.04 gr/dscf
 - (ii) Exhibit 20 percent opacity, or greater

- (b) The one (1) 25,000 gallon No. 2 distillate or No.6 residual fuel oil storage tank is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Parts 60.110b, Subpart Kb) based on capacity and date of construction.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (PSD Minor Limit)

The one (1) drum dryer/mixer combusting either natural gas, No. 2 or No. 6 fuel oil with a maximum throughput of 300 tons per hour is not subject to 326 IAC 2-2 (PSD) as it has accepted federally enforceable operation conditions which limit emissions of NOx and SO2 to below 250 tons per 12-month period. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

326 IAC 2-8-4 (FESOP)

This source is subject to 326 IAC 2-8-4 (FESOP). Pursuant to this rule:

- (a) SO2 emissions from the Plant #1 and Plant #2 dryer burners, shall be limited to 99.0 tons per twelve (12) consecutive months. The limits are as follows:
 - (1) The combined total input of No. 6 fuel oil and No. 6 fuel oil equivalents to Plant #1 and Plant #2 dryer burners shall be limited to 755,178 gallons per twelve (12) consecutive month period. This is equivalent to limiting the potential to emit SO2 to less than 100 tons per twelve (12) consecutive month period. During the first twelve (12) months of operation under this permit, the input of No. 6 fuel oil and No. 6 fuel oil equivalents shall be limited such that the total gallons divided by the accumulated months of operation shall not exceed the below stated throughputs in gallons per months. The total for each month shall not exceed the difference between the annual limit minus the sum of actual usage from the previous eleven (11) months. Compliance is based on the total fuel used during the previous twelve (12) months.
 - (2) For purposes of determining compliance based on SO2 emissions, the following fuel equivalencies shall apply:
 - (A) Each gallon of No. 2 distillate fuel oil burned shall be equivalent to 2.71 x 10⁻¹ gallons of No. 6 fuel oil.

Due to the inherently low sulfur content of natural gas there is no equivalency to No. 6 fuel oil. Natural gas shall be limited to a maximum of 682.15 MMcf of natural gas fired per 12 consecutive month period pursuant to paragraph (b) of this condition.

(3) The total amount of No. 6 fuel oil and No. 6 fuel oil equivalence combined shall not exceed the limit specified. During the first twelve (12) months of operation under this permit, the No. 6 fuel oil and No. 6 fuel oil equivalents combined shall be limited such that the total gallons divided by the accumulated months of operation shall not exceed 755,178 gallons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 will not apply.

- (b) NOx emissions from the Plant #1 and Plant #2 dryer burners, shall be limited to 95.5 tons per twelve (12) consecutive months. The limits are as follows:
 - (1) The combined total input of natural gas and natural gas equivalents in the Plant #1 and Plant #2 dryer burners shall be limited to 682.15 million cubic feet per twelve (12) consecutive month period. This is equivalent to NO_x emissions of 95.5 tons per twelve (12) consecutive month period. During the first 12 months of operation under this permit, the input of natural gas and natural gas equivalents shall be limited such that the total million cubic feet divided by the accumulated months of operation shall not exceed the below stated throughputs in million cubic feet per months. The total for each month shall not exceed the difference between the annual limit minus the sum of actual usage from the previous eleven (11) months. Compliance is based on the total fuel used during the previous twelve (12) months.
 - (2) For purposes of determining compliance based on NOx emissions, the following equivalencies shall apply:
 - (A) Each gallon of No. 2 distillate fuel oil burned shall be equivalent to 7.14×10^{-5} MMcf of natural gas.
 - (B) Each gallon of No. 6 distillate fuel oil burned shall be equivalent to 1.96 x 10⁻⁴ MMcf of natural gas.
 - (3) The total amount of natural gas and natural gas equivalence combined shall not exceed the limit specified. During the first twelve (12) months of operation under this permit, the natural gas and natural gas equivalents combined shall be limited such that the total gallons divided by the accumulated months of operation shall not exceed 682.15 million cubic feet per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 will not apply.
- (c) PM-10 emissions from the aggregate dryers (including combustion emissions from the aggregate dryer burners) shall be limited to 14.62 pounds per hour, each. These PM-10 emission rate limitations combined with a total source asphalt production limit of 4,000,000 tons per twelve (12) consecutive months will limit the PM-10 PTE from the dryers to 65.0 tons per year such that, when combined with PM-10 emissions from the other operations at the source, shall limit the potential to emit PM-10 of the source to 99 tons per year.
- (d) The use of volatile organic compounds in the production of cold mix/cutback asphalt shall be limited to 78.6 tons per twelve (12) consecutive month period such that, based on a conservatively estimated total volatilization of 95%, VOC emissions will be limited to 74.7 tons per twelve consecutive months.

Based on these limitations, the requirements of 326 IAC 2-7 do not apply. This requirement also satisfies the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset). See Appendix A for supporting calculations.

There are no other new State Rules applicable to the entire source basis due to this Significant Source Modification. All State Rules cited in FESOP (F019-5424-03109) on December 9, 1996; First Minor Modification 019-8782-03109, issued on October 14, 1997; Second Minor Modification 019-9865-03109, issued on September 14, 1998; First Significant Modification 019-9885-03109, issued on October 28, 1998; First Significant Permit Revision: 019-11077-03109, issued on October 25, 1999; and First Administrative Amendment 019-11859-03109, issued on March 22, 2000, continue to apply to this source.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (New Sources Toxics Control)

The source or the proposed new equipment does not have the potential to emit (PTE) 10 tons per year of any HAP or 25 tons per year of any combination of HAPs, therefore the requirements of 326 IAC 2-4.1 do not apply.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The sulfur dioxide emissions from the 116 million Btu/hr drum mixer/dryer burner, when:

- (a) No. 2 fuel oil is used, shall be limited to 0.5 pounds per million British thermal units heat input. This equates to a distillate fuel oil sulfur content limit of 0.5%. Therefore, the sulfur content of the distillate fuel must be less than or equal to 0.5% in order to comply with this rule (See Appendix A for detailed calculations).
- (b) No. 6 fuel oil is used, shall be limited to 1.6 pounds per million British thermal units heat input. This equates to a distillate fuel oil sulfur content limit of 1.67%. Therefore, the sulfur content of the distillate fuel must be less than or equal to 1.67% in order to comply with this rule (See Appendix A for detailed calculations).

Based on the information submitted, the sulfur content of both the No. 2 and No. 6 fuel oils is 0.05%. Therefore, the burner combustion of No. 2 and No. 6 fuel oils comply with the rule.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

(a) Daily visible emission notations of each asphalt plant stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Changes Proposed

The following changes have been made to the FESOP with the approval of the OAQ Air Compliance Section:

- (a) The OAQ has revised the permit to replace the old name of Office of Air Management (OAM) with the new name of the Office of Air Quality (OAQ).
- (b) The expiration has been added to the signature box. The cover page of the permit has been revised as follows for clarity and to include addition rule citations:

(Herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the facilities listed source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR Part 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17 and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-14 and IC 13-7-10).

(c) A.1 (General Information) has been revised to include an explanatory paragraph and rule cite for the definition of a FESOP source in 326 IAC 2-8.

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates two (2) stationary hot drum-mix asphalt plants.

Responsible Official: Authorized Individual: Diane M. Green
Source Address: 1019 East Utica Street, Sellersburg, IN 47172

Page 9 of 16 Significant Permit Revision 019-13962-03109

Mailing Address: P.O. Box D, Sellersburg, IN 47172

SIC Code: 2951 County Status Source Location: Clark

County Status: Nonattainment for ozone

Attainment for all other criteria pollutants

Source Status: Synthetic Minor Source, FESOP Program Federally

Enforceable State Operating Permit (FESOP)

(d) Section A.2 of the permit has been revised to include the following emission unit description:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

The stationary source consists of the following emission units and pollution control devices: Plant #1:

- (a) One (1) 30,000 gallon liquid asphalt storage tank for asphalt cement.
- (b) One(1) 20,000 gallon liquid asphalt storage tank for asphalt cement.
- (c) One (1) hot drum mixer, identified as Unit #2, with a maximum capacity of 600 tons of asphalt per hour, equipped with one (1) drum mix dryer utilizing natural gas at a maximum rated capacity of 200 million British thermal units per hour (MMBtu/hr), using one (1) baghouse for particulate control, and exhausting to one (1) stack, S/V ID #1.

Plant #2

- (d) One (1) drum dryer/mixer with a maximum throughput of 300 tons per hour utilizing a dryer burner fired by **either** natural gas, **No. 2 distillate or No. 6 residual fuel oil** with a maximum heat input capacity of 116 million British thermal units per hour (MMBtu/hr). The dryer/mixer exhausts at stack SV2-1.
- (e) One (1) baghouse with a total filter area of 7975 ft2.
- (f) Two (2) 30,000 gallon liquid asphalt storage tanks.
- (g) One (1) 15,000 gallon liquid asphalt storage tank.
- (h) One (1) 25,000 gallon No. 2 distillate or No. 6 residual fuel oil storage tank.
- (e) Section D.1 of the permit has been revised to include the following emission unit description:

Facility Description [326 IAC 2-8-4(10)]:

Plant #1

One (1) hot drum mixer, identified as Unit #2, with a maximum capacity of 600 tons of asphalt per hour, equipped with one (1) drum mix dryer utilizing natural gas at a maximum rated capacity of 200 million British thermal units per hour (MMBtu/hr), using one (1) baghouse for particulate control, and exhausting to one (1) stack, S/V ID #1.

Plant #2

One (1) drum dryer/mixer with a maximum throughput of 300 tons per hour utilizing a dryer burner fired by **either** natural gas, **No. 2 distillate or No. 6 residual fuel oil** with a maximum heat input capacity of 116 million British thermal units per hour (MMBtu/hr). The dryer/mixer exhausts at stack SV2-1.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

(f) The new Condition D.1.1, has been added to the permit to limit the potential to emit SO2 to less than 100 tons per twelve (12) consecutive month period. The revised condition reads as follows:

D.1.1 Sulfur Dioxide (SO2)[326 JAC 2-8]

(a) The combined total input of No. 6 fuel oil and No. 6 fuel oil equivalents to Plant #1 and Plant #2 dryer burners shall be limited to 755,178 gallons per twelve (12) consecutive month period. This is equivalent to limiting the potential to emit SO2

to less than 100 tons per twelve (12) consecutive month period. During the first twelve (12) months of operation under this permit, the input of No. 6 fuel oil and No. 6 fuel oil equivalents shall be limited such that the total gallons divided by the accumulated months of operation shall not exceed the below stated throughputs in gallons per months. The total for each month shall not exceed the difference between the annual limit minus the sum of actual usage from the previous eleven (11) months. Compliance is based on the total fuel used during the previous twelve (12) months.

- (b) For purposes of determining compliance based on SO2 emissions, the following fuel equivalencies shall apply:
 - (1) Each gallon of No. 2 distillate fuel oil burned shall be equivalent to 2.71 x 10⁻¹ gallons of No. 6 fuel oil.

Due to the inherently low sulfur content of natural gas there is no equivalency to No. 6 fuel oil. Natural gas shall be limited to a maximum of 682.15 MMcf of natural gas fired per 12 consecutive month period pursuant to Condition D.1.2.

(c) The total amount of No. 6 fuel oil and No. 6 fuel oil equivalence combined shall not exceed the limit specified. During the first twelve (12) months of operation under this permit, the No. 6 fuel oil and No. 6 fuel oil equivalents combined shall be limited such that the total gallons divided by the accumulated months of operation shall not exceed 755,178 gallons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 will not apply.

Due to these limits, the Emission Offset (326 IAC 2-3) and the Prevention of Significant Deterioration (326 IAC 2-2 and 40 CFR 52.21) rules do not apply.

(g) Condition D.1.1, now D.1.2 of the permit has been modified to include a limitation on natural gas equivalent input. The revised condition reads as follows:

D.1.42 Nitrogen Oxides (NO_x) [326 IAC 2-8]

- (a) The combined total usage input of natural gas and natural gas equivalents in the Plant #1 and Plant #2 dryer burners shall be limited to 682.15 million cubic feet per twelve (12) consecutive month period. This is equivalent to limiting the potential to emit NOx to less than 100 emissions of 95.5 tons per twelve (12) consecutive months period. During the first 12 months of operation under this permit, the input of natural gas and natural gas equivalents shall be limited such that the total million cubic feet divided by the accumulated months of operation shall not exceed the below stated throughputs in million cubic feet per months. The total for each month shall not exceed the difference between the annual limit minus the sum of actual usage from the previous eleven (11) months. Compliance is based on the total fuel used during the previous 12 months.
- (b) For purposes of determining compliance based on NOx emissions, the following equivalencies shall apply:
 - (1) Each gallon of No. 2 distillate fuel oil burned shall be equivalent to 7.14 x 10⁻⁵ MMcf of natural gas.
 - (2) Each gallon of No. 6 distillate fuel oil burned shall be equivalent to

1.96 x 10⁻⁴ MMcf of natural gas.

(c) The total amount of natural gas and natural gas equivalence combined shall not exceed the limit specified. During the first twelve (12) months of operation under this permit, the natural gas and natural gas equivalents combined shall be limited such that the total gallons divided by the accumulated months of operation shall not exceed 682.15 million cubic feet per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 will not apply.

Due to thisthese limits, the Emission Offset (326 IAC 2-3) and the Prevention of Significant Deterioration (326 IAC 2-2 and 40 CFR 52.21) rules do not apply.

(h) The new Condition D.1.7 has been added to the Emission Limitations and Standards to list the requirements of 326 IAC 7-1.1-1. The new condition reads as follows, and the remaining conditions have been renumbered:

D.1.7 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations) the SO_2 emissions from the drum dryer/mixer with a maximum heat input capacity of 116 million British thermal units per hour (MMBtu/hr) shall not exceed five tenths (0.5) pounds per MMBtu heat input when combusting No. 2 fuel oil or one and six tenths (1.6) pounds per MMBtu heat input when combusting No. 6 fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

(i) The new Condition D.1.10 has been added to the Compliance Determination Requirements to demonstrate compliance with Sulfur Dioxide Emissions and Sulfur Content requirements. The new condition reads as follows, and the remaining conditions have been renumbered:

D.1.10 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the drum dryer/mixer with a maximum heat input capacity of 116 million British thermal units per hour (MMBtu/hr), using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

(j) Condition D.1.12, now D.1.15, has been revised as follows to include current model language:

D.1.1215 Broken or Failed Bag or Failure Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, The affected compartments will be shut down immediately until the failed units have been repaired or replaced. For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C Compliance Monitoring Plan Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated, For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions).
- (k) Condition D.1.13, now D.1.16 has been modified to include a natural gas equivalence record keeping requirement, and to add record keeping requirements for 326 IAC 7-1.1-1.

D.1.13**16** Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1, D.1.2a and D.1.5a D.1.1, D.1.2, D.1.3a and D.1.6a, the Permittee shall maintain records in accordance with the items below.
 - (1) Monthly records of the natural gas, natural gas equivalents, No. 6 fuel oil and No. 6 fuel oil equivalents used in each asphalt plant dryer burner.
 - (2) Monthly records of the amount of asphalt mix produced at each asphalt plant.
 - (3) The amount and VOC contents of each diluent used in the production of cold mix cutback asphalt at each plant. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.
- (b) To document compliance with Condition D.1.4112, the Permittee shall maintain records of

daily visible emission notations of the aggregate dryer baghouse stack exhaust.

- (c) To document compliance with Condition D.1.12**13**, the Permittee shall maintain the following:
 - (1) Documentation of all response steps implemented, per event.
 - (2) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 - (3) Quality Assurance/Quality Control (QA/QC) procedures.
 - (4) Operator standard operating procedures (SOP).
 - (5) Manufacturer's specifications or its equivalent.
 - (6) Equipment "troubleshooting" contingency plan.
- (d) To document compliance with Condition D.1.7, the Permittee shall maintain records in accordance with (1) through (6) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
 - (3) To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used.

If the fuel supplier certification is used to demonstrate compliance, when burning alternate fuels and not determining compliance pursuant to 326 IAC 3-7-4, the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications;
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original stripchart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (d)(e) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.
- (I) Condition D.1.14, now D.1.17, has been modified to include reporting requirements for 326 IAC 7.

D.1.4417 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.1.1 and D.1.2 shall be submitted to the address listed in Section C General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.
- (b) A quarterly summary of the information to document compliance with Condition D.1.23a shall be submitted to the address listed in Section C General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their

- equivalent, within thirty (30) days after the end of the quarter being reported.
- (c) A quarterly summary of the information to document compliance with Condition D.1.**56**a shall be submitted to the address listed in Section C General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.
- (d) A semi-annual summary of the information to document compliance with Condition D.1.7 in any compliance period when No. 2 or No. 6 fuel oil was combusted, shall be submitted to the address listed in Section C General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six (6) month period being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (m) Section D.2 has been revised as follows to include the new 25,000 gallon No. 2 distillate or No. 6 residual fuel oil storage tank:

Facility Description [326 IAC 2-8-4(10)]:

Plant #1

One (1) 30,000 gallon liquid asphalt storage tank for asphalt cement.

One (1) 20,000 gallon liquid asphalt storage tank for asphalt cement.

Plant #2

Two (2) 30,000 gallon liquid asphalt storage tanks.

One (1) 15,000 gallon liquid asphalt storage tank.

One (1) 25,000 gallon No. 2 distillate or No. 6 residual fuel oil storage tank.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

(n) The FESOP Quarterly Report at the end of the permit has been revised to add natural gas equivalents to the usage limitation.

Limit: The combined natural gas usage **and natural gas equivalence** from Plants #1 and #2 shall be limited to 682.15 million cubic feet (MMcf) per twelve (12) consecutive month period.

(o) A new FESOP Quarterly Report has been added to the end of the permit for the sulfur dioxide limitation in the new Condition D.1.1.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT **OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION**

	FESOF	Quarterly Report	
Source Name: Source Address: Mailing Address: FESOP No.: Facility: Parameter: Limit:	P.O. Box D, Sellers F019-5424-03109 Plants #1 and #2 A Sulfur Dioxide The combined tota Plant #1 and Plant twelve (12) consec	reet, Sellersburg, IN 47172	•
	TEAT	·	
	Column 1	Column 2	Column 1 + Column 2
Month	No. 6 Fuel Oil Usage This Month (gallons)	No. 6 Fuel Oil Usage Previous 11 Months (gallons)	12 Month Total No. 6 Fuel Oil Usage (gallons)
Month 1			
Month 2			
Month 3			
Titl Sig Da	Deviation/s occurre Deviation has beer bmitted by: e / Position: nature:	•	

Page 16 of 16 Significant Permit Revision 019-13962-03109

Conclusion

This permit revision shall be subject to the conditions of the attached proposed **FESOP Significant Permit Revision No. 019-13962-03109**.

Company Name:

Plant Location:

County:

Date Recieved:

Permit Reviewer:

Sellersburg Stone Company Inc.

1019 East Utica Street, Sellersburg, IN 47172

Clark

February 27, 2001

Phillip Ritz/EVP

** asphalt heating **

The following calculations determine the amount of emissions created by natural gas combustion, based on the limited potential to emit for natural gas and EPA SCC #3-05-00

The following calculations determine the amount of emissions created by natural gas combustion, based or 682 MMcf/yr and EPA SCC #3-05-002-06:

			allowable	% difference
PM:	1.9 lb/MMcf =	0.65 ton/yr	59	1.10%
P M-10:	7.6 lb/MMcf =	2.59 ton/yr	65	3.99%
SOx:	0.6 lb/MMcf =	0.20 ton/yr	99	0.21%
NOx:	280.0 lb/MMcf =	95.50 ton/yr	95.5	100.00%
V O C:	2.8 lb/MMcf =	0.96 ton/yr	25	3.82%
C O:	84.0 lb/MMcf =	28.65 ton/yr	98.71	29.02%

The following calculations determine the amount of emissions created by #2 distillate fuel oil @ 0.50 % sulfur, based on 8760 hours of use and AP 42 Tables 1.3-1, 1.3-2 and 1.3-3 (SCC 1-03-004-02/03,1-02-004-02/03, and 1-03-004-04)

Pollutant:	160	MMBtu/hr * 8760 hr/yr	* Ef (lb/1000 gal) = (ton/yr)
	140,000	Btu/gal * 2000 lb/ton	
	P M:	2.0 lb/1000 gal =	10.01 ton/yr
	P M-10:	2.0 lb/1000 gal =	10.01 ton/yr
	SOx:	71.0 lb/1000 gal =	355.41 ton/yr
	NOx:	20.0 lb/1000 gal =	100.11 ton/yr
	V O C:	0.3 lb/1000 gal =	1.70 ton/yr
	C O:	5.0 lb/1000 gal =	25.03 ton/yr

The following calculations determine the amount of emissions created by #6 residual fuel oil @ 1.67 % sulfur, based on 8760 hours of use and AP 42 Tables 1.3-1, 1.3-2 and 1.3-3 (SCC 1-03-004-02/03,1-02-004-02/03, and 1-03-004-04)

Pollutant:	160	MMBtu/hr * 8760 hr/yr	* Ef (lb/1000 gal) = (ton/yr)
	150,000	Btu/gal * 2000 lb/ton	
		_	
	P M:	10.0 lb/1000 gal =	46.72 ton/yr
	P M-10:	10.0 lb/1000 gal =	46.72 ton/yr
	SOx:	262.2 lb/1000 gal =	1224.95 ton/yr
	NOx:	55.0 lb/1000 gal =	256.96 ton/yr
	V O C:	1.1 lb/1000 gal =	5.28 ton/yr
	C O:	5.0 lb/1000 gal =	23.36 ton/yr

Since the three fuels cannot be operated concurrently, the maximum potential of the heater due to fuel combustion is as follows:

PM:	46.72	ton/yr
P M-10:	46.72	ton/yr
SOx:	1224.95	ton/yr
NOx:	256.96	ton/yr
V O C:	5.28	ton/yr
C O:	28.65	ton/yr

TSD Appx A Page 2 of 3

* * source emissions after controls * *

The following calculations determine the amount of emissions created by natural gas combustion, based or 682 MMcf/yr and EPA SCC #3-05-002-06:

			allowable	% difference
PM:	1.9 lb/MMcf =	0.65 ton/yr	59	1.10%
P M-10:	7.6 lb/MMcf =	2.59 ton/yr	65	3.99%
SOx:	0.6 lb/MMcf =	0.20 ton/yr	99	0.21%
NOx:	280.0 lb/MMcf =	95.50 ton/yr	95.5	100.00%
V O C:	2.8 lb/MMcf =	0.96 ton/yr	25	3.82%
C O:	84.0 lb/MMcf =	28.65 ton/yr	98.71	29.02%

The following calculations determine the amount of emissions created by No. 2 distillate fuel oil @ 0.50 % sulfur, based on ************gallons and AP 42 Tables 1.3-1, 1.3-2 and 1.3-3

Pollutant:		2,788,732 2000	gal/yr lb/ton	* Ef	(lb/1000 gal) :	= (ton/yr)		
							allowable	% difference
	P M:	2.0	lb/1000 g	al =	2.79	ton/yr	59	4.73%
	P M-10:	2.0	lb/1000 g	al =	2.79	ton/yr	65	4.29%
	SOx:	71.0	lb/1000 g	al =	99.00	ton/yr	99	100.00%
	NOx:	20.0	lb/1000 g	al =	27.89	ton/yr	95.5	29.20%
	V O C:	0.3	lb/1000 g	al =	0.47	ton/yr	25	1.90%
	CO:	5.0	lb/1000 g	ıal =	6.97	ton/yr	98.71	7.06%

The following calculations determine the amount of emissions created by No. 6 residual fuel oil @ 1.67 % sulfur, based on 755,178 gallons and AP 42 Tables 1.3-1, 1.3-2 and 1.3-3

Pollutant:		755,178	gal/yr	* Ef ((lb/1000 gal) =	= (ton/yr)		
		2000	lb/ton					
							allowable	% different
	PM:	18.6	lb/1000 g	jal =	7.01	ton/yr	59	11.88%
	P M-10:	18.6	lb/1000 g	jal =	7.01	ton/yr	65	10.79%
	SOx:	262.2	lb/1000 g	jal =	99.00	ton/yr	99	100.00%
	NOx:	55.0	lb/1000 g	jal =	20.77	ton/yr	95.5	21.75%
	V O C:	1.1	lb/1000 g	jal =	0.43	ton/yr	25	1.71%
	C O:	5.0	lb/1000 g	jal =	1.89	ton/yr	98.71	1.91%

Since the three fuels cannot be operated concurrently, the maximum potential of the heater due to fuel combustion is as follows:

PM:	7.01
P M-10:	7.01
SOx:	99.00
NOx:	95.50
V O C:	0.96
C O:	28.65

SPR 019-13962 Plant I D 019-13962-03109

TSD Appx A Page 3 of 3

* * miscellaneous * *

The following calculations determine the maximum sulfur content of No. 2 distillate fuel oil allowable by 326-IAC 7:

0.5 lb/MMBtu x 140,000 Btu/gal= 70 lb/1000gal

70 lb/1000gal / 144 lb/1000 gal = 0.49

Sulfur content must be less than or ϵ 0.49% to comply with 326 IAC 7.

The following calculations determine the maximum sulfur content of No. 6 residual fuel oil allowable by 326-IAC 7:

1.6 lb/MMBtu x 150,000 Btu/gal= 240 lb/1000gal

240 lb/1000gal / 144 lb/1000 gal = 1.67

Sulfur content must be less than or ϵ 1.67% to comply with 326 IAC 7.